



***A MANUAL FOR MINISTRY OF
ENERGY AND WATER RESOURCES
GALMUDUG STATE OF SOMALIA***

***MONITORING AND EVALUATION
POLICY AND PROCEDURES***

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Introduction

This Manual is a reference document which provides detailed information about Monitoring and Evaluation (M&E) and is intended to provide assistance to users with the objective of developing policies and procedures at the ministry level. The purpose of the manual is to promote a good understanding and reliable practices of M&E for projects or programmes. It covers the key planning steps and processes needed to set up and implement an M&E system for project planning, implementation and evaluation. It has been designed to be used by M&E specialists, managers of civil society organizations, in particular humanitarian relief and development programs, and decision makers responsible for programme oversight and funding.

The manual focuses on the key components of an M&E system that allows planners to develop and strengthen M&E policies and procedures for projects or programmes. The manual has been organized into three chapters which cover **the theory, policy and application of M&E systems**.

The first chapter lays out the theoretical foundation of M&E systems and the narrative is designed to help readers develop an understanding of essential concepts. The first chapter is divided into three sections which follow a logical train of thought from hypothesis of how change will come about, to development of specific objectives needed for this change, to methods on how to measure the project's achievements of its stated objectives, and finally procedures for collecting and analyzing data and information used in the measurement.

In Chapter two a template for framing an M&E policy is laid out which is designed to provide guiding principles to “Ministry of Energy and water Resources Galmudug state” in setting up and implementing M&E systems. This chapter also helps define and determine the role of M&E functions and further mandates addressing a number of M&E priorities.

Chapter three provides the structure for the practical application of an M&E system at the organizational level. In this chapter an outline of an M&E framework consisting of a list of standard M&E procedures, information required to perform these procedures, timelines and responsibilities is provided. In addition outlines to establish an M&E system is also given.

This chapter proposes a list of tasks under each step to help M&E staff establish a central M&E function and meet project specific M&E requirements and includes the steps. This section is supported by a number of templates annexed with this manual to help perform standard M&E procedures.

Section 1: Monitoring and Evaluation

Monitoring:

Monitoring is a periodically recurring task already beginning in the planning stage of a project or programme. Monitoring documents results, processes and experiences and uses this information as a basis to guide decision-making and learning processes. **Monitoring is about checking progress against plans. The data acquired through monitoring is used for evaluation.**

Monitoring is the systematic and routine collection of information from projects and programmes for four main purposes:

- ❖ **To learn from experiences** to improve practices and activities in the future;
- ❖ To **have internal and external accountability of the resources** used and the results obtained;
- ❖ To take **informed decisions on the future of the project** or programme;
- ❖ To **promote empowerment of beneficiaries** of the project or programme.

Monitoring focuses on the measurement of the following aspects of an intervention:

- ❖ On quantity and quality of the implemented activities (**outputs**: What do we do? How do we manage our activities?)
- ❖ On processes inherent to a project or programme (**outcomes**: What were the effects /changes that occurred as a result of your intervention?)
- ❖ On processes external to an intervention (**impact**: Which broader, long-term effects were triggered by the implemented activities in combination with other environmental factors?)

Common types of monitoring in projects or programmes include;

- ❖ **Results monitoring** tracks effects and impacts. This is where monitoring merges with evaluation to determine if the project/programme is on target towards its intended results (outputs, outcomes, impact) and whether there may be any unintended impact (positive or negative). For example, a psychosocial project may monitor that its community activities achieve the outputs that contribute to community resilience and ability to recover from a disaster.
- ❖ **Process (activity) monitoring** tracks the use of inputs and resources, the progress of activities and the delivery of outputs. It examines how activities are delivered – the efficiency in time and resources. It is often conducted in conjunction with compliance monitoring and feeds into the evaluation of impact. For example, a water and sanitation

project may monitor that targeted households receive septic systems according to schedule.

- ❖ **Compliance monitoring** ensures compliance with donor regulations and expected results, grant and contract requirements, local governmental regulations and laws, and ethical standards. For example, a shelter project may monitor that shelters adhere to agreed national and international safety standards in construction.
- ❖ **Context (situation) monitoring** tracks the setting in which the project/programme operates, especially as it affects identified risks and assumptions, but also any unexpected considerations that may arise. It includes the field as well as the larger political, institutional, funding, and policy context that affect the project/programme. For example, a project in a conflict-prone area may monitor potential fighting that could not only affect project success but endanger project staff and volunteers.
- ❖ **Beneficiary monitoring** tracks beneficiary perceptions of a project/programme. It includes beneficiary satisfaction or complaints with the project/programme, including their participation, treatment, access to resources and their overall experience of change. Sometimes referred to as beneficiary contact monitoring (BCM), it often includes a stakeholder complaints and feedback mechanism. It should take account of different population groups, as well as the perceptions of indirect beneficiaries (e.g. community members not directly receiving a good or service). For example, cash-for work programme assisting community members after a natural disaster may monitor how they feel about the selection of programme participants, the payment of participants and the contribution the programme is making to the community.
- ❖ **Financial monitoring** accounts for costs by input and activity within predefined categories of expenditure. It is often conducted in conjunction with compliance and process monitoring. For example, a livelihoods project implementing a series of microenterprises may monitor the money awarded and repaid, and ensure implementation is according to the budget and time frame.
- ❖ **Organizational monitoring** tracks the sustainability, institutional development and capacity building in the project/programme and with its partners. It is often done in conjunction with the monitoring processes of the larger, implementing organization. For example, a National Society's headquarters may use organizational monitoring to track communication and collaboration in project implementation among its branches and chapters.

Although there are variations in the tools and processes according to the monitoring need as described above, there are however some best practices which are summarized below;

- ❖ Monitoring data should be well-focused to specific audiences and uses (only what is necessary and sufficient).
- ❖ Monitoring should be systematic, based upon predetermined indicators and assumptions.
- ❖ Monitoring should also look for unanticipated changes with the project/ programme and its context, including any changes in project/programme assumptions/risks; this information should be used to adjust project/programme implementation plans.
- ❖ Monitoring needs to be timely, so information can be readily used to inform project/programme implementation.
- ❖ Whenever possible, monitoring should be participatory, involving key stakeholders – this can not only reduce costs but can build understanding and ownership.
- ❖ Monitoring information is not only for project/programme management but should be shared when possible with beneficiaries, donors and any other relevant stakeholders.

Evaluation:

Evaluation is assessing, as methodically and objectively as possible, a completed project or programme (or a phase of an ongoing project or programme that has been completed). Evaluations assess data and information that inform strategic decisions in order to improve the project or programme in the future. During an evaluation, information from previous monitoring processes is used to understand the ways in which the project or programme developed and stimulated change. Evaluations should help to draw conclusions about five main aspects of the intervention:

- ❖ Relevance
- ❖ Efficiency
- ❖ Impact
- ❖ Sustainability

Information gathered in relation to these aspects during the monitoring process provides the basis for the evaluative analysis. The evaluation process is an analysis or interpretation of the collected data which delves deeper into the relationships between the results of the project, the effects produced by the project and the overall impact of the project.

The major types of evaluation which can occur during the project or programme are defined under three headings;

1. According to evaluation timing.

- ❖ **Formative evaluations** occur during project/programme implementation to improve performance and assess compliance.
- ❖ **Summative evaluations** occur at the end of project/programme implementation to assess effectiveness and impact.
- ❖ **Midterm evaluations** are formative in purpose and occur midway through implementation. For projects/ programmes that run for longer than 24 months, some type of midterm assessment, evaluation or review is usually required by the donor. Typically, this does not need to be independent or external, but may be according to specific assessment needs.
- ❖ **Final evaluations** are summative in purpose and are conducted (often externally) at the completion of project/programme implementation to assess how well the project/programme achieved its intended objectives.
- ❖ **Ex-post evaluations** are conducted some time after implementation to assess long-term impact and sustainability.

2. According to who conducts the evaluation?

- ❖ **Internal or self-evaluations** are conducted by those responsible for implementing a project/programme. They can be less expensive than external evaluations and help build staff capacity and ownership. However, they may lack credibility with certain stakeholders, such as donors, as they are perceived as more subjective (biased or one-sided). These tend to be focused on learning lessons rather than demonstrating accountability.
- ❖ **External or independent evaluations** are conducted by evaluator(s) outside of the implementing team, lending it a degree of objectivity and often technical expertise. These tend to focus on accountability.
- ❖ **Participatory evaluations** are conducted with the beneficiaries and other key stakeholders, and can be empowering, building their capacity, ownership and support.
- ❖ **Joint evaluations** are conducted collaboratively by more than one implementing partner, and can help build consensus at different levels, credibility and joint support.

3. According to evaluation technicality or methodology.

- ❖ **Real-time evaluations** (RTEs) are undertaken during project/ programme implementation to provide immediate feedback for modifications to improve ongoing implementation. Emphasis is on immediate lesson learning over impact evaluation or accountability. RTEs are particularly useful during emergency operations, and for example are required during flooding and water tracking emergency operations that are

more than nine months in length or plan to reach 100,000 people or more target beneficiaries.

- ❖ **Meta-evaluations** are used to assess the evaluation process itself. Some key uses of meta-evaluations include: take inventory of evaluations to inform the selection of future evaluations; combine evaluation results; check compliance with evaluation policy and good practices; assess how well evaluations are disseminated and utilized for ministry learning and change, etc.
- ❖ **Thematic evaluations** focus on one theme, such as gender or environment, typically across a number of projects, programmes or the whole institution.
- ❖ **Cluster/sector evaluations** focus on a set of related activities, projects or programmes, typically across sites and implemented by multiple organizations/institutions (e.g. National Societies, and other stakeholders both federal level and state level).
- ❖ **Impact evaluations** focus on the effect of a project/ programme, rather than on its management and delivery. Therefore, they typically occur after project/ programme completion during a final evaluation or an ex-post evaluation. However, impact may be measured during project/ programme implementation during longer projects/ programmes and when feasible.

Summary: A Comparison between Monitoring and Evaluation

	Monitoring	Evaluation
Timing: when it's done?	Continues throughout the project	Periodic review at significant point at the project progress- End of project, midpoint of project, change of phase.
Scope: What information is collected?	Day to day activities, outputs, indicators of progress and change	Assess overall delivery of outputs and progress towards objectives and goal
Main participants: Who does it?	Project staff, project users	External evaluators / facilitators, project users, project staff, donors Process
Written outputs: What is produced?	Regular reports and updates to project users, management and donors	Written report with recommendations for changes to project – presented in workshops to different stakeholders
How are the results used?	To improve quality of implementation and adjust planning. As input to evaluation	To judge the impact on the target population; adjust objectives; decide about the future of the programme

Why is M&E Important for the ministry's projects?

Monitoring and Evaluation is important because:

- ❖ It provides the only consolidated source of information showcasing project progress;
- ❖ It allows actors to learn from each other's experiences, building on expertise and knowledge;
- ❖ It often generates (written) reports that contribute to transparency and accountability, and allows for lessons to be shared more easily;
- ❖ It reveals mistakes and offers paths for learning and improvements;
- ❖ It provides a basis for questioning and testing assumptions;
- ❖ It provides a means for agencies seeking to learn from their experiences and to incorporate them into policy and practice;
- ❖ It provides a way to assess the crucial link between implementers and beneficiaries on the ground and decision-makers;
- ❖ It adds to the retention and development of institutional memory;
- ❖ It provides a more robust basis for raising funds and influencing policy.

Section 2: The M&E System:

The M&E system provides the information needed to assess and guide the project strategy, ensure effective operations, meet internal and external reporting requirements, and inform future programming.

A functional M&E system provides a continuous flow of information that is useful internally and externally.

- The internal use of information on progress, problems, and performance is a crucial management tool that helps managers ensure that specific targets are met
- The information from an M&E system is also important to those outside the organization who are expecting results, wanting to see demonstrable impacts

M&E should be an integral part of project design and also part of project implementation and completion. It is therefore important to understand the key stages of the project life cycle and how an M&E system corresponds to this.

Figure 1: M&E and the Project Life Cycle

What is the Project Life Cycle?

The **Project Life Cycle** refers to a logical sequence of activities to accomplish the project's goals or objectives. A project passes through different operational stages in its life, completing a cycle starting from its design and ending upon its conclusion. Every project, whether large or

Small, passes through four stages of project management. It is important to understand the characteristics of these four key areas.

Stage 1: Design-Starting the Project:

The stage involves determining the nature and scope of the project, generating, evaluating and framing the business case for the project and the general approach to performing it, and agreeing to prepare a detailed Project Plan. Any deficiencies should be reported and a recommendation should be made to fix them. If this stage is not performed well, it is unlikely that the project will be successful in meeting the business' needs.

This stage should include a plan that covers the following areas:

- ❖ Analyzing the business needs/requirements in measurable goals
- ❖ Reviewing of the current operations
- ❖ Financial analysis of the costs and benefits including a budget
- ❖ Stakeholder analysis, including users, and support personnel for the project
- ❖ Project charter including costs, tasks, deliverables, and schedule

Outputs from this stage may include approval to proceed to the next stage, documentation of the need for the project, and rough estimates of time and resources to perform it, and an initial list of people who may be interested in, involved with or affected by the project.

Stage 2: Planning-Organizing and Preparing:

After the design stage, the next step is the Planning stage in which the project is planned to an appropriate level of detail. This stage involves developing a plan that specifies the desired results: the work to do; the time, the cost and other resources required; and a plan for how to address key project risks. As with the first stage, a failure to adequately plan greatly reduces the project's chances of successfully accomplishing its goals.

The steps usually taken in Project Planning consists of;

- ❖ Developing the scope statement;
- ❖ Selecting the planning team;
- ❖ Identifying deliverables and creating the work breakdown structure;
- ❖ Identifying the activities needed to complete those deliverables and networking the activities in their logical sequence;

- ❖ Estimating the resource requirements for the activities;
- ❖ Estimating time and cost for activities;
- ❖ Developing the schedule;
- ❖ Developing the budget;
- ❖ Identification of key assumptions and risks, risk mitigation planning;
- ❖ Gaining formal approval to begin work

Outputs from this stage include a Project Plan documenting the intended project results and the time, resources and supporting processes to help create them, along with all the other controls that the project needs, such as for risk management.

Stage 3: Implementation-Carrying Out the Work:

The Implementation phase consists of the processes used to complete the work defined in the project plan to accomplish the project's requirements. The Implementation process involves coordinating people and resources, as well as integrating and performing the activities of the project in accordance with the project management plan. The deliverables are produced as outputs from the processes performed as defined in the project management plan and other frameworks that might be applicable to the type of project at hand.

The main processes in the Implementation phase include:

- ❖ Acquire human and other resources (such as equipment, office etc.)
- ❖ Carry out project activities,
- ❖ Quality assurance
- ❖ Develop and manage Project team
- ❖ Effective internal and external communication
- ❖ Manage stakeholders
- ❖ Test the deliverables against the initial design

Outputs from this stage may include project progress reports, financial reports and further detailed plans.

Stage 4: Conclusions- losing the Project

This stage involves assessing the project results, obtaining customer approvals, assigning project team members to new work, closing financial accounts and conducting a post-project evaluation. Closing includes the formal acceptance of the project and the ending thereof. Administrative activities include the archiving of the files and documenting lessons learned.

This phase consists of:

Contract closure: Complete and settle each contract (including the resolution of any open items) and close each contract applicable to the project or project phase.

Project close: Finalize all activities across all of the process groups to formally close the project or a project phase

Outputs from this stage may include final, accepted and approved project results and recommendations and suggestions for applying lessons learned from this project to similar efforts in the future.

The Key Components of an M&E System:

In conclusion, an M&E system is built on the parameters of a project such as;

- ❖ The overall goal of the project or the desired change you wish to bring about or the effect you want to happen;
- ❖ The beneficiaries the project aims to benefit;
- ❖ The hypotheses or assumptions of the project and how these connect the project objectives to project activities or interventions;
- ❖ The scope and size of the project;
- ❖ The capacity for M&E and the extent of participation;
- ❖ The duration of the project;
- ❖ The overall budget of the project.

Therefore, each project will have different M&E needs and these will be dependent on; the context in which the project operates; the capacity of the implementing team; the requirements of the donor. These needs should be identified when preparing an M&E plan and the methods, procedures and tools used to meet them coordinated accordingly. In doing this, resources will be conserved and planning of M&E activities streamlined.

The foundation on which an M&E system is built consists of four key components; the Problem Analysis Framework, the Log frame or Logical Framework, the M&E Plan or Indicator Matrix and the Data Collection and Analysis Plan. A further two components reporting and Utilization and M&E Staffing and Capacity Building which are integral and important are also discussed.

These components play a vital role in M&E planning and answer the following questions;

1. What does the project want to change and how?
2. What are the specific objectives to achieve this change?
3. What are the indicators and how will they measure this?

4. How will the data be collected and analyzed?

In the following section we shall discuss each of the key components in detail and exemplify how they contribute to the development of an M&E system.

Section 3: The Key Components of an M&E System

1. Problem (Causal) Analysis Framework:

A problem (causal) analysis framework is essential to understanding key interventions and identifying the variables needed to assess the effects of the project. The analysis helps develop the hypothesis which the M&E system will test in order to determine whether the project's interventions and outputs contributed to the desired outcomes. In summary the analysis aims to identify the following:

1. The major problem and condition(s) that the project seeks to change
2. Factors that cause the condition(s)
3. Ways to influence the causal factors, based on hypotheses of the relationships between the causes and likely solutions
4. Interventions to influence the causal factors
5. The expected changes or desired outcomes

The information needed to carry out the analysis should be based on careful study of local conditions and available data and in consultation with target beneficiaries, implementing partners, stakeholders and technical experts. This information should be obtained if available from needs assessments, feasibility studies, participatory rapid appraisals (PRAs), community mapping, and SWOT (strengths, weaknesses, opportunities, threats) analysis.

2. Log frame or Logical Framework

The log frame or logical framework is an important project management tool which illustrates the conceptual foundation upon which a project's M&E system is built. It involves identifying strategic elements (inputs, outputs, activities, outcomes, impact) and their causal relationships, indicators, and the assumptions of risks that may influence success and failure. It thus facilitates planning, execution, and monitoring and evaluation of an intervention.

The log frame is a matrix made up of columns and rows which specifies the project objectives, what you are trying to achieve and, the project indicators, how the achievement will be measured. The project objectives and indicators are assessed against the project inputs,

outputs, outcomes and impact (goal) and it is important to understand the difference between these. In table 1 the key terms and components of a classic 4x5 log frame matrix are presented and the terms defined.

The core of the Logical Framework is the "temporal logic model" that runs through the matrix. This takes the form of a series of connected propositions:

- ❖ If these Activities are implemented, and these Assumptions hold, then these Outputs will be delivered
- ❖ If these Outputs are delivered, and these Assumptions hold, then this Outcome will be achieved.
- ❖ If this Outcome is achieved, and these Assumptions hold, then this Goal will be achieved.

Table: Definitions of key terms and components of Log frame

Project Objectives	Indicators	Means of Verification	Risks & Assumptions
GOAL A broad statement of a desired, usually longer-term, outcome of a project. Goals express general project intentions and help guide the development of a project. Each goal has a set of related, specific objectives that, if met, will collectively permit the achievement of the stated goal.	Impact Indicator Quantitative or qualitative means to measure achievement or to reflect the changes connected to stated goal	Measurement method, data source, and data collection frequency for stated indicator	External factors necessary to sustain the long-term impact, but beyond the control of the project
OUTCOMES Set of beneficiary and population level changes needed to achieve the goal (usually knowledge, attitudes and practices, or KAP)	Outcome Indicator Quantitative or qualitative means to measure achievement or to reflect the changes connected to stated outcomes	Measurement method, data source, and data collection frequency for stated indicator	External conditions necessary if the outcomes are to contribute to achieving the goal
ACTIVITIES Actions taken or work performed through which inputs such as funds, technical assistance, and other types of resources are mobilized to produce specific outputs	Process Indicator Quantitative or qualitative means to measure completion of stated activities,	Measurement method, data source, and data collection frequency for	Factors out of the project's control that could restrict or prevent the activities from

	i.e., attendance at the activities	stated indicator	achieving the outcomes
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3. Indicators and M&E Plan (Indicator Matrix) \

Indicators

Indicators are defined as quantitative or qualitative variable that provides a valid and reliable way to measure achievement, assess performance, or reflect changes connected to an intervention. **Indicators help in observing and measuring the actual results as compared to the expected results.** Indicators help by generating information and or data, which are required to guide effective actions. **An indicator is neutral in nature and does not embed any direction or target.** A bowing treetop is an indicator of the wind; an indicator does not require indicating the direction or extent to which a tree top should bow down.

Effective indicators are a critical log frame element. Technical expertise is helpful, and before indicators are finalized, it is important to jointly review them with key implementers to ensure that they are realistic and feasible and meet user informational need.

It is also important to understand the log frame's hierarchy of indicators. For instance, it is usually easier to measure lower-level indicators such as the number of workshop participants, whereas the higher-level indicators, such as behavioral change, typically require more analysis and synthesis of information. This affects the M&E data collection methods and analysis and has implications for staffing, budgets, and timeframe.

When designing indicators the following questions should be considered;

Are the indicators relevant, measurable, achievable and time-bound? Indicators should be easy to interpret and explain, timely, cost-effective, and technically feasible. Each indicator should have validity (be able to measure the intended concept accurately) and reliability (yield the same data in repeated observations of a variable).

Are there indicators required by the donor, grant or program? This can be especially important if the project-level indicator is expected to roll up to a larger accountability framework at the program level.

Are there secondary indicator sources? It may be cost-effective to adopt indicators for which data have been or will be collected by government departments, private sector, international agency or other institution, and so on.